UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,718	03/17/2004	Yuri Hiraiwa	TSM-36	1887

7590	02/10/2006	EXAMINER

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EXAMINER
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ART UNIT	PAPER NUMBER
2185	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		10/801,718	HIRAIWA ET AL.
		Examiner	Art Unit
		Daniel Kim	2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 March 2004_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-6_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-6_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _17 March 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☒ All   b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _3/17/04_.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on July 6, 2005 was filed

after the mailing date of the parent application on December 19, 2003. The submission

is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information

disclosure statement is being considered by the examiner.

Priority

2.   Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 2003-

423464, filed on December 19, 2003.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.   Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the enablement requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to enable one skilled in the art to which it

pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 4, line 21 discloses a "fourth identification information". This concept is

never mentioned in the specification, and thus lacks antecedent basis. Appropriate

correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mimatsu

(US PGPub No. 20050010733) and Senoh (US PGPub No. 20020078178).

For claim 1, Mimatsu discloses a data duplication method which duplicates data

being stored in a storage subsystem connected to a computer (management

information for each disk volume is read from and written in by an external computer so

that the backup data of disk volumes can be associated with the management

information, abstract), wherein,

said computer includes a processor unit and a storing unit (a processor and

storage are inherent in said computer, abstract), said method comprising:

an identification information reading step which reads out from a storing unit an

identification information list in which identification information of each of a plurality of

storage media included in the storage subsystem is stored (the random distribution of

segments may be represented in and tracked by a segment table, or catalog, par. 0051;

in order to access the segments of data, each segment has a unique identifier. The copies of the segments may have the same unique identifier; a file system may access the catalog manager to obtain the segment table for each source or file which lists the segment identifiers and the storage units on which the copies of the segments are stored, par. 0052) (software for controlling the backup and restore processes manages a list or catalog of the produced backup data, par. 0004),

a first reading step which reads out from the storing unit, a first duplication definition information which stores the identification information with respect to each of the plurality of storage media, and identification information of a copy destination storage medium of each of the plurality of storage media (a file system of the client may locate the segment table for the source or file, determine which segments need to be accessed and select a storage unit from which the data should be read for each segment, using the unique segment identifiers, par. 0052) (a backup program on the computer orders the disk array to generate a snapshot of the data-stored disk volumes. The computer transmits the information about the backup program and such information as backup date and time and content identifiers pertaining to the snapshot to the disk array. The disk array causes this information to be recorded on the storage regions associated with the disk volumes of the snapshot. The backup program also causes this management information to be recorded on the catalog of the backup data, par. 0012; the disk array has the function to copy the disk volume data and also the management information incidental to the disk volume, thus treating the data of the disk volumes and the accompanying management information in association with each other, par. 0014),

a first comparing step which compares the identification information list read out

in the identification information reading step, and the first duplication definition

information read out in the first reading step (backup data and its management

information are stored in association with each other, par. 0118).

Despite these teachings, Peters fails to disclose an addition step in which if there

exists first identification information that is stored in the identification information list but

not stored in the first duplication definition information in the first comparing step, a copy

destination storage medium of a storage medium identified by the first identification

information is selected according to a predetermined selection condition, the first

identification information and the identification information of the copy destination

storage medium thus selected are added to the first duplication definition information,

and data in the storage medium having the identification information is copied to the

copy destination storage medium thus selected, nor, (unlike the data mirror function in

which data is copied is previously selected, the snapshot function automatically assigns

a volume number to a generated snapshot. The list of snapshot volume numbers is

recorded in the volume management table in place of the copy destination volume

number list. When a snapshot volume is newly produced, an entry having an unused

volume number is added to the volume management table, and the newly added

volume number is recorded in the snapshot volume number list of the snapshot source

volume, par. 0094)

a deletion step in which if there exists second identification information that is not

stored in the identification information list but is stored in the first duplication definition

information in the first comparing step, the second identification information and

identification information of a copy destination storage medium, which is a copy

destination of a storage medium identified by the second identification information, are

deleted from the first duplication definition information (the disk array control program

refers to the volume management table, and deletes the volume information of the

specified volume number. Then, the backup server program deletes the corresponding

entries of the backup data table, par. 0082).

Despite these teachings, Mimatsu fails to disclose copying the data of the

storage medium identified by the second identification information is stopped. Senoh,

however, discloses a content distribution control over a network, in which if content

verification fails because, for example, the content identification is not detected,

receiving the content by any of a plurality of user terminals is stopped (par. 0076).

Senoh and Mimatsu are analogous art in that they are of the same field of

endeavor, that is, a system and/or method of memory control. It would have been

obvious to a person of ordinary skill in the art at the time of the invention to include

stopping of data copying because this allows for great control of content distribution

over a network (abstract), as taught by Senoh.

For claim 2, the combined teachings of Mimatsu and Senoh disclose the

invention as per the rejection of claim 1 above. Mimatsu further discloses there exist a

plurality of said storage subsystems connected to the computer, and a plurality of said

storage subsystems which include said copy destination storage medium (a disk array

has storage regions provided to store management information for each disk volume of

backup data, and an interface is provided through which the management information

for each disk volume is read from and written in by an external computer, abstract).

Claim 3 is rejected using the same rationale as for the rejections of claims 1 and

2 above.

Claims 5 and 6 are rejected using the same rationale as for the rejections of

claims 1 and 2 above.

7.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mimatsu

(US PGPub No. 20050010733), Senoh (US PGPub No. 20020078178) and Jeddeloh

(US Patent No. 6,363,502).

For claim 4, the combined teachings of Mimatsu and Senoh disclose the

invention as per the rejections of claims 1-2 above. These teachings do not, however,

disclose a selection condition includes information which has caused an error to occur.

Jeddeloh, however, discloses the memory controller processor employs control

lines to inform a selected one of the error detection and error correction modules

whether the memory access request includes a read or a write request, col. 5, lines 15-

18).

Jeddeloh, Mimatsu and Senoh are analogous art in that they are of the same

field of endeavor, that is, a system and/or method of memory control. It would have

been obvious to a person of ordinary skill in the art at the time of the invention

Citation of Pertinent Prior Art

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Itoh et al (US PGPub No. 20040039890), discloses recording devices having data storage units, data allocation storage units for storing allocation information of each stored data, and control units for writing and reading data using the allocation information in the data allocation storage units.

Hirabayashi (US PGPub No. 20030200275), discloses a file transfer system and method capable of making backups, which includes logical volume layers and link information that includes copy group map information that defines a group of disks to which data is copied.

Carpentier et al (US PGPub No. 20040220975), discloses content addressing and content verification, in which adding a file to a database involves storing these values in a table as a pair.

Contact Information

9.   Any inquiries concerning this action or earlier actions from the examiner should be directed to Daniel Kim, reachable at 571-272-2742, on Mon-Fri from 8:30am-5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan, is also reachable at 571-272-4210.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information from

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. All questions

regarding access to the Private PAIR system should be directed to the Electronic

Business Center (EBC), reachable at 866-217-9197.

2-6-06

PIERRE VITAL
PRIMARY EXAMINER